

What is claimed is:

- 1 1. A gear drive having at least one continuously variable drive shaft bearing float and preload adjustment system with an integral seal carrier for a bearing assembly on a drive shaft that protrudes from the gear drive that comprises:
  - 4 a threaded housing bore in a housing for the gear drive;
  - 5 a threaded adjustment ring with ring threads that mate the threads in the housing bore and a thrust surface that constrains a bearing assembly for a drive shaft that protrudes from the housing in fixed axial alignment through the adjustment ring to provide adjustable float and preload of the bearing assembly; and
  - 9 at least one shaft seal mating with the drive shaft mounted within the adjustment ring.
- 1 2. The gear drive of Claim 1 wherein the threaded adjustment ring is loosened within the housing bore to increase float of the drive shaft bearing.
- 1 3. The gear drive of Claim 1 wherein the threaded adjustment ring is tightened within the housing bore to increase preload of the drive shaft bearing.
- 1 4. A bearing assembly float and preload adjustment system with an integral seal carrier for a drive shaft that protrudes from a gear drive housing in fixed axial alignment with the housing, comprising:
  - 4 a threaded housing bore in the housing for the gear drive;
  - 5 a threaded adjustment ring with ring threads that mate the threads in the housing bore and a thrust surface that constrains a bearing assembly for the drive shaft to provide a continuously variable float and preload for the drive shaft bearing assembly; and
  - 9 at least one shaft seal mating with the drive shaft mounted within the adjustment ring.

1    5. The bearing assembly of Claim 4 wherein the threaded adjustment ring is  
2    loosened within the housing bore to increase float of the drive shaft bearing.

1    6. The bearing assembly of Claim 4 wherein the threaded adjustment ring is  
2    tightened within the housing bore to increase preload of the drive shaft bearing.